CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512

September 15, 1999

Mr. Les Toth
5546 Old Salt Ln
Agoura Hills, CA 91301

Dear Mr. Toth:

THREE MOUNTAIN POWER PROJECT DATA REQUESTS NUMBERS 51 THROUGH 70

Pursuant to Title 20, California Code of Regulations, section 1716, the California Energy Commission (Energy Commission) staff requests that the Three Mountain Power Project, Limited Liability Company (LLC) supply the information specified in the enclosed data requests (Data Requests 51 through 70). These data requests address soil and water resources and biological resources.

Written responses to the enclosed data requests are due to the Energy Commission by October 14, 1999 or at such later date as may be agreed upon by the Energy Commission staff and the applicant. A publicly noticed workshop is scheduled for September 21, and 22, 1999, in Burney, to discuss these data requests. Staff will be available to answer questions regarding the data requests and the level of detail required to answer the requests satisfactorily.

If you are unable to provide the information requested in the data requests or object to providing it, you must, within 15 days of receiving these requests, send a written notice of your inability or objection(s) to both Chairman William J. Keese, Presiding Member of the Committee for this proceeding, and me. The notification must also contain the reasons for not providing the information and the grounds for any objections (see Title 20, California Code of Regulations section 1716 (e)).

If you have any questions regarding the enclosed data requests, please call me at (916) 653-1614.

Sincerely,

Richard Buell
Siting Project Manager

Enclosure

cc: Proof of Service 99-AFC-2
RKB:rkb
DATAREQ3.DOC

Technical Area: Soil & Water Resources
Technical Staff: Joe O'Hagan

BACKGROUND

The AFC stated that the Three Mountain Power Project would obtain its potable and plant water supplies from the Burney Water District. The only other alternative would be an on-site groundwater well(s).

DATA REQUEST

51. If potable and service water are to be supplied by the Burney Water District, please submit a will serve letter from the Burney Water District that includes any supply conditions or facility partnership agreements.

BACKGROUND

In order to supply the estimated 1,900 gallons per minute (gpm) on average and 3,200 gpm peak demand for the proposed project, two additional wells will be constructed by Burney Water District (Lawrence 99, page 15,)[1]. The proposed two wells (300 feet) will be constructed similar to other Burney Water District wells and are estimated to produce at least 1,500 gpm. These wells will be owned and operated by Burney Water District. If the peak demand is 3,200 gpm, it may be optimistic to rely on only two wells. To allow for possible pump failures, installation of a backup well to serve the project should be considered.

DATA REQUEST

52. Please indicate whether a third well is to be installed to serve the project, and if not, what water source will serve as a backup water supply.

53. Please submit a plan describing the aquifer analysis that will be performed to verify that the newly installed wells will yield sufficient water to serve the needs of the project.

BACKGROUND

The AFC stated that Burney Water District would install approximately 3,500 feet of 24 inch piping from the facility to the first well site, approximately 1,000 feet of 18 inch piping to the second well site and approximately 3,000 feet of 14 inch piping to connect with the Burney Water District. The planned expansion is being federally funded to enhance local firefighting capabilities. The figures which were submitted with the AFC apparently depict only one water pipeline, with the exception of Figure 2.1-10 illustrating a third alternative for a proposed tank

[1] "Ground-Water Resource Evaluation Of The Burney Basin, And Effects Of Ground-Water Pumping And Waste Water Disposal from the Proposed Three Mountain Power Plant, Burney, Shasta County, California", Lawrence & Associates, April 19, 1999 (AFC Appendix J).

and pipeline project that was prepared by Pace Civil Inc. As part of the system improvement for the district, a two million-gallon water storage tank will be built.

DATA REQUEST

54. Please submit a map at a scale of 1 inch equals 500 feet illustrating the entire infrastructure associated with water supply and wastewater disposal conveyance (both domestic and industrial).

55. Please clarify whether the two million-gallon water storage tank proposed by the Burney Water District will be used by the proposed project. If this storage tank is not to be used by the proposed project, please identify whether the project will have a water storage tank and, if so, the size and location of proposed tank.

BACKGROUND

The existing National Pollution Discharge Elimination System (NPDES) Permit for the Burney Water District Wastewater Treatment facility (dated January 28, 1994), limits discharges to 1,000 milligrams per liter (mg/L) of total dissolved solids (TDS). Based upon a conversation with George Day of the Central Valley Regional Water Quality Control Board, wastewater exceeding approximately 900 mg/l of TDS might not be allowable in percolation ponds and would have to be discharge to a lined pond. The data provided in Table 6.14-5 (AFC 1999) that identifies the chemical constituent of the wastewater shows a TDS concentration of 996 mg/l from a water source with 108 mg/l TDS. This information is not consistent with the analytical data included in Appendix J for samples collected from Burney Mountain Power Well #1 on October 14, 1998 (126 mg/l TDS). In addition, Table 6.14-5 of the AFC did not to provide the detection limits for the source water analysis.

DATA REQUEST

56. Please provide the estimated water quality analysis and flow rates of the various waste streams that will be discharged to the wastewater ponds. Based upon Figure 2.2-5a and pages 2-21 and 2-22 of the AFC, these waste streams include: cooling tower, heat recovery steam generator and CT evaporative cooler blowdown, pretreatment waste, reverse osmosis concentrate, water from the oil water separator, and other flows from plant drains. Detection limits for each constituent in the source water should be identified as well.

BACKGROUND

The AFC and the Lawrence & Associates Report states that project pumping will decrease the amount of total discharge from the Burney basin by 2 percent with no observable changes in the discharge over Burney Falls. However, as groundwater also discharges to springs an evaluation and inventory of nearby springs will be necessary.

57. Please submit information regarding the location and current discharges of springs within a three-mile radius of the proposed wells.

BACKGROUND

Lawrence and Associates (1999) performed modeling of wastewater flows using Modflow based software. Two layers (250 feet each) were modeled using 57 rows and 38 columns (10 miles wide and 9 miles long) to describe the extent of the modeled area. The results of this modeling effort indicated that TDS concentrations in excess of background might result from the discharge of the proposed plant's blowdown to unlined ponds. These concentrations were thought to be within the natural variation observed in wells in the Burney Basin. Additional modeling analysis may be necessary to account for differences associated with the use of 900 mg/L in the modeled discharge versus a higher discharge value which would result from the use of higher TDS concentrations in the proposed plant's source water.

DATA REQUEST

58. Please submit a map depicting wells referenced for water quality comparison, as well as wells within the model boundaries.

59. Please provide a copy of all Modflow, Visual Modflow and MT3D data files used in the groundwater analysis described in the Lawrence & Associates Report.

BACKGROUND

A well survey of wells in T35N R2E, T35N R3E, T36N R2E, and T36N R3E (USGS Burney Quadrangle 1957) was provided in the Lawrence & Associates Report. However, both Burney Water District and Johnson Park wells are located in T35N R3E in which there was reported only 4 municipal wells. BWD operates 3 municipal wells and Del Oro Water Company, that supplies water to the residents of Johnson Park, operates 2 wells (Lawrence p. 19, 1999). The three Burney Water District wells serve a population of 3,300 through 1,698 active service connections. The total reported annual water production for 1997 was 411 million gallons. The maximum reported annual water production since 1992 was 470 million gallons (Lewis 1999). There are a total of six wells of record in the vicinity of the proposed project wells (T35N R3E Section 16) that were reported by Lawrence (1999); however, only three were identified in the well survey data included (Lawrence Appendix A, 1999).

DATA REQUEST

60. Please provide an updated well survey for all wells found in T35N R2E, T35N R3E, T36N R2E, and T36N R3E of the USGS Burney Quadrangle (1957).

BACKGROUND

Lawrence and Associates (1998) reported that during winter periods, shallow groundwater occurs downgradient from the existing Burney Water District evaporation ponds and that wastewater perculating from new ponds would move along the top of the fresher basalt and contribute to the shallow groundwater. Apparently discharge from the current evaporation ponds is occurring as evidenced by elevated electrical conductivity measurements in the

surface water downgradient of the ponds. In addition, the NPDES permit for the BWD wastewater ponds does not allow discharge to unlined ponds unless the following criteria are met:

- Percolation rate of the underlying soils is slower than five minutes per inch at any point and
- Minimum flow path through soil to open fractures of five feet.

DATA REQUEST

61. Please provide an analysis of the soils at the location of the proposed wastewater discharge ponds showing these soils at the proposed location meet the Waste Discharge Requirement criteria. This analysis should include a description of all tests performed, a description of all test results and a map showing the location of all tests undertaken.

BACKGROUND

State Water Resources Control Board Resolution No. 75-58, Water Quality Control Policy on the Use and Disposal of Inland Waters Used for Powerplant Cooling contains a discharge prohibition on the discharge to land disposal sites of blowdown waters from inland powerplant cooling facilities except to salt sinks or to lined facilities approved by the Regional and State Boards for the reception of such wastes. The proposed use of unlined percolation ponds for project wastewater disposal conflicts with this discharge prohibition. Additionally, the AFC failed to evaluate the compliance of the project with Resolution 75-58, except to state that "the method of disposal of blowdown water will not violate water quality objectives or WDR established by the CVRWQCB Order No. 94-017.

DATA REQUEST

62. Please provide a detailed discussion of potential alternative wastewater disposal methods, including zero discharge technology and lined ponds. The discussion should identify environmental impacts and benefits as well as provide estimated costs to the proposed project.

BACKGROUND

The existing National Pollutant Discharge Elimination System Permit for Burney Water District Wastewater Treatment Facility, issued 28 January 1994, limited discharges to 0.44 mgd. To increase their permitted discharge limits to accommodate 0.4 mgd discharged wastewater from TMPP, the Burney Water District will need to apply to the CVRWQCB to amend their existing Order. Conversely, the applicant may apply to the CVRWQCB for a Waste Discharge Requirement.

DATA REQUEST

63. If the Burney Water District requests a revised Waste Discharge Requirement for the proposed project's wastewater ponds, please submit a copy of a will serve letter

for wastewater discharges, including any pretreatment and monitoring requirements, as well as any other conditions. The frequency that the project is required to monitor the wastewater stream should also be specified. Also please provide a copy of the revised Report of Waste Discharge that the district will submit to the Central Valley Regional Water Quality Control Board. Please submit the anticipated schedule for the Central Valley Regional Water Quality Control Board permit review and approval.

64. If the applicant is to apply for a Waste Discharge Requirement for the wastewater ponds, please submit a copy of the Report of Waste Discharge to be submitted to the Central Valley Regional Water Quality Control Board. Please submit the anticipated schedule for the Central Valley Regional Water Quality Control Board permit review and approval.

BACKGROUND

Construction and operation of the Three Mountain Power Project may induce water and wind erosion at the power plant and along the associated linear facilities.

DATA REQUEST

65. Please provide a draft erosion control and stormwater management plan that identifies measures that should be implemented at the power plant and associated facilities. The plan should identify all permanent and temporary measures in written form and depicted on a construction drawing(s) of appropriate scale. The elements of the plan should include temporary and permanent erosion control and stormwater runoff measures. The plan should also identify maintenance and monitoring efforts for all erosion and stormwater runoff control measures.

BACKGROUND

The Three Mountain Power Project intends to use fresh inland ground water for cooling. State Water Resources Control Board Policy 75-58, the Water Quality Control Policy on the Use and Disposal of Inland Waters Used for Powerplant Cooling, requires the evaluation of alternatives to the use of "fresh inland waters." This policy states that "...an analysis of the cost and water use associated with the use of alternative cooling facilities employing dry, or wet/dry modes of operation" must be conducted.

DATA REQUEST

66. Please provide an analysis of the cost and water use associated with the use of dry or wet/dry cooling technology for the proposed Three Mountain Power Project. The analysis should identify, for both dry and wet/dry cooling technologies, the estimated capital and operating costs and anticipated water demand.

    a. Please provide the assumptions and calculations underpinning the capital costs, including, but not limited to, discussions of whether labor and financing

costs are included in the estimates, and the performance levels for the technologies specified.

b. Please provide energy balances for the combined cycles at 50%, 75%, 100% and peak loads, at both 59 and 98 ^{o}F.

c. Please provide quantities of water used and discharged, and water preparation and clean-up chemicals used for the various configurations.

67. Please include a discussion of the relative environmental benefits and disbenefits of wet, versus wet/dry, and dry cooling technologies. This discussion should include evaluation of water demand, particulate matter emissions associated with the use of wet and wet/dry cooling technology, visual resources implications, and land use requirements.

a. Please quantify air emissions from the project stacks and cooling towers, for the various configurations, 1) assuming constant fuel use, efficiency and capacity losses, and increased parasitic loads, and 2) assuming maximized fuel use, efficiency and capacity losses, and increased parasitic loads.

b. Please quantify the footprints and dimensions of the cooling towers in the various configurations.

c. Please quantify occurrences and sizes of visible plumes for the various configurations.

d. Please quantify noise levels from the various configurations.

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Technical Area: Biological Resources
Author**:** Linda Spiegel

BACKGROUND

In order to evaluate the project's potential environmental impacts due to reconductoring of Pacific Gas and Electric's (PG&E) 230 kV lines, staff needs to understand the construction method and activities. The application does not contain a complete description.

DATA REQUEST

68. Please provide a description of the construction methods and activities for the reconductoring of the existing PG&E 230 kV lines. Please specifically address the following:

    a. Describe how the existing conductors and insulators will be removed and how the new conductors and insulators will be installed. State whether tension stringing will be used. If tension stringing is not used, describe what steps, if any, will be used to keep the line off the ground and whether drag trails, crushing or clearing will occur.

    b. Describe the construction activities and equipment and vehicles used to bring tower parts (if any) and other facilities to the tower sites from the laydown or other areas. Describe the construction methods, equipment and vehicles used for installation of the insulators and hardware.

    c. Describe the general conditions of the existing roads to be used for construction activities and any road improvements or grading necessary for construction activities.

BACKGROUND

The wastewater discharge ponds shown on Figure 2-2 of (Response to Biological Resources Data Request # 2) were not discussed in the AFC or Supplemental Filings and are not shown on the Facility Plot Plan, Figure 2-1 (Response to Biological Resources Data Request # 2). In addition, no biological or cultural resource information has been provided for these waste wastewater discharge ponds.

DATA REQUEST

69. Please clarify whether new or existing discharge ponds are proposed to dispose of wastewater from the project.

    a. If new ponds are proposed, please provide the results and dates of biological and cultural surveys conducted in the area.

70. Please discuss plans for mosquito abatement of the discharge ponds.